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GROWTH CAPABILITIES AND DEVELOPMENT: IMPLICATIONS FOR TRANSITION PROCESS IN CUBA

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IRIS Summary

Two conceptual issues are addressed in this paper: the distinction between growth and development and the definition of the standard of living. By separating these two issues at the conceptual level, it becomes easier to analyze and implement a novel definition of the standard of living in terms of capabilities put forth by Sen and adopted by the United Nations in its Human Development Report. As a result, one can develop some of the implications of viewing the capabilities approach to the standard of living in terms of the household production model. Upon reviewing the principal ways of implementing the capabilities approach from this perspective, these ideas are applied to the analysis of transition processes currently under way in Cuba.

If one views economic development as a process whereby a society consistently increases the standard of living of a substantial proportion of its population, the essential distinction between growth and development falls on the word consistently. That is development implies the ability to adapt to changes in the external environment in such a way as to continue to increase the standard of living, however defined. Growth, on the other hand, is consistent with the existence of long periods of stagnation in the standard of living. This applies to the capabilities view of the standard of living as well as to the narrower economic opulence view implied by the use of per capita GNP as a measure of the standard of living. It also implies that these processes are likely to be characterized by path dependence. That is the evolution of the process over time depends on the previous history of the process. Thus, the usefulness of any particular definition of the standard of living is considerably increased when it leads us to mechanisms that improve our understanding of these evolutionary processes.

The capabilities view of the standard of living stresses the existence of several dimensions of well being that allow individuals to attain their potential as human beings: health, education, command over economic resources and in some versions access to political and civil liberties. It is shown in this paper that the household production model provides an insightful economic mechanism for viewing the standard of living in terms of these capabilities. In particular, many of these dimensions of capabilities are determined by the availability of resources provided to households by other institutions in society. For instance, public goods such as the access to safe water provided by governments or distribution services such as information or assortments provided by retail institutions. These resources act as fixed inputs into households production functions, hence lowering the costs to producing these capabilities to households; they operate as outputs for other institutions, thus using up resources. Consequently, a society's arrangement for producing a given level of capabilities is subject to potential cost shifting between the household and other institutions, leading to the possibility of a wide variety of optimal arrangements depending on the economic characteristics of the environment.

These basic ideas are used to evaluate current attempts at measuring capabilities and at implementing this approach. They point to the difficulty of using measures that fail to track the evolution of the standard of living over time or that ignore certain features of evolutionary processes, such as the existence of externalities that generate thresholds for example. The household production model suggests that targeted food subsidies may be viewed as an alternative to health expenditures as a mechanism for expanding capabilities. The distinction between growth and development emphasized here suggests including the political and civil liberties dimensions in any definition of the standard of living in terms of capabilities.

An application of these ideas to the analysis of the Cuban experience starts by noting the dismal current economic situation and its recent evolution. A comparison to Chile and Costa Rica in terms of basic capabilities suggests that emphasis on some dimensions to the total neglect of other dimensions of capabilities is not sustainable. Indeed, there are trade-offs between different dimensions of the standard of living. Finally this experience illustrates that the inclusion of political and civil liberties as an explicit dimension of capabilities provides a mechanism whereby these trade offs can be systematically undertaken by a society, which is itself part of the standard of living and of the development process.

Growth Capabilities and Development: Implications for Transition Processes in Cuba*

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I. Introduction

Some fundamental issues about the nature of economic development have been questioned in the recent literature.¹ The distinction between growth and development, which will play an important role in my subsequent discussion, is one; another one concerns the definition of the standard of living, which has been the subject of a recent treatise by P. Dasgupta, a prominent economic theorist.² Concern about poverty has moved discussions of the standard of living from the philosophical and conceptual realm to the practical realm of development policy. Indeed, the United Nations has espoused a particular approach to the subject, often referred to as the capabilities approach. This article will focus on the following two issues, ways of implementing the capabilities approach and the application of the capabilities approach to Cuba's development.

In Section II, I show that an essential distinction between growth and development is independent of any particular definition of the standard of living. The capabilities view of the standard of living and its relationship to the household production model is considered in Section III. In particular, I stress the role of other institutions in providing fixed inputs to households, which leads to a considerable potential for cost shifting between households and other institutions. Section IV discusses various ways of implementing the capabilities approach described in the literature in light of the ideas in the previous two sections. In Section V, I use the ideas developed earlier in this article to discuss Cuba's role as an outlier from the perspective of the capabilities approach, current economic conditions, and the transition processes under way. A brief conclusion highlights one implication of the capabilities approach for Cuba's current situation and the implications of Cuba's experience for the capabilities approach.

II. The Meaning of Economic Development

S. Anand and M. Ravallion provide a recent example of how the discussion of economic development is frequently framed.³ One view is expressed by the following statements: "Development is often taken to mean rising incomes. A still common view equates development with growth, though there has been a shift in emphasis since the 1970s to a focus on the distribution of incomes." The following statement describes an alternative view: "The essence of this view is that human development—what people can actually do and be—is the overriding purpose of economic development." The first view is characterized as mainstream and associated with the World Development Report put out by the World Bank.⁴ The second view can be characterized as nonmainstream, by default, and is associated with the Human Development Report put out by the United Nations.⁵

Framing the issue of the meaning of development in terms of the alternatives discussed above may be useful for certain purposes, but it lumps together a potential distinction between growth and development and alternative definitions of the standard of living. The first view implies a narrow definition of the standard of living in terms of income, as purchasing power over goods and services, although it allows for some correction to income on the basis of its distribution. The second view implies a much broader definition of the standard of living, which could encompass freedom, health, and education as well as income.⁶ Both alternatives, however, are consistent with a distinction between growth and development.

The distinction between these two concepts has had an uneven history. In an essay on the semantic history of the term "economic development," H. Arndt points out the Marxist origins of the term and how it evolved from colonial times through the postwar years.⁷ He quotes W. A. Lewis as well as others to show that by the late 1950s the terms "growth" and "development" were being used interchangeably. He concluded by noting that in the subsequent 20 years development economists tried to break down the identification of growth with development.

Recent developments in economics suggest, however, that the distinction between growth and development is becoming blurred once more. First, the conventional wisdom that modern economic growth results mainly from the application of science and technology to production processes has been challenged by economic historians, who point to the role of institutions in this process.⁸ Having to account for the role of institutions in explaining growth makes it harder to distinguish between growth and development. Second, the development of endogenous growth models opens the door for economic policy to affect outcomes.⁹ Once again, accounting for economic policy in ex-

plaining growth makes it harder to distinguish between growth and development.

By considering the following working definition of development and what it implies, we can draw a meaningful distinction between growth and development that encompasses the two views of the standard of living implicit in Anand and Ravallion's discussion. That is, economic development is a process or set of processes whereby a society consistently experiences increases in the standard of living of a substantial majority of its population.

If one accepts that economic processes are characterized by novelty, irreversibility, and hysteresis,¹⁰ the essential distinction between growth and development falls on whether or not these processes result in an improvement in the standard of living, however defined, over long periods of time. The practical significance of this distinction is that over long periods of time environmental circumstances change, and in modern times dramatically so. Development implies that the set of processes determining the functioning of a society, even if unique to that society, allow it to adapt to this fundamental uncertainty in such a way as to improve the standard of living of most of its members. Growth, on the other hand, can be followed by long periods of stagnation.

No matter what definition of the standard of living one adopts, the relevant question to distinguish between growth and development is how the standard of living of the majority of the population evolves in response to changing circumstances. Hence, any definition of the standard of living, if it is to be useful, should yield mechanisms that permit an improvement in our understanding of these evolutionary processes. In the next section I consider the conceptual basis of the standard of living underlying the Human Development Report and suggest one way of implementing this definition that provides a mechanism for linking the standard of living thus defined and the economic and political processes that determine its evolution.

III. The Standard of Living and the Household Production Model

In the Tanner lectures A. Sen brings together many of the ideas developed earlier to suggest a definition of the standard of living in terms of capabilities and functionings.¹¹ Sen questions the use of average GNP or GDP as an indicator of the standard of living, especially as the sole indicator. He also provides a conceptual basis for considering social indicators or basic needs standards as measures of functionings or realized capabilities that intrinsically make up the standard of living rather than as supplements to GDP as a measure of true opulence, which is the current view that Sen is questioning.

In a discussion of Sen's arguments in connection with the Tanner

lectures, J. Muellbauer brings out the similarities between Sen's view of capabilities and the household production model.¹² In this context market goods, environmental inputs, and personal characteristics are the sources of the capabilities set or the set of feasible functionings.

In his reply Sen accepts the validity of the analogy but questions its usefulness. In particular, he argues that many of the functionings are produced at least as much outside the household as inside it, for example, the case of public policy against epidemics. This objection lacks substance in many settings. One can view a functioning or level of a fundamental commodity to be produced as the state of health and one can conceive of it as produced with variable inputs chosen by the households and with fixed inputs made available to the household by the state or society. Hence, state-produced public policy against epidemics can be viewed as providing higher or lower levels of fixed inputs into the household production activities.

It is misleading to ignore or underestimate this connection in either measuring the standard of living, which concerns Sen, or explaining behavior, which is the concern of some proponents of the household production model.¹³ Underestimating or ignoring the connection leads to the neglect of a fundamental economic interaction between households and other institutions that constitute any society. For instance, if a society is so constituted that the public provision of safe water by a community takes place at low or even zero levels, a household's standard of living is negatively affected. One can think of an increase in the provision of this public good as an increase in the level of a fixed input to the household. The latter uses this input to produce health services at a lower cost than it could otherwise, and, as a result, its standard of living increases, after allowing for the taxes necessary to cover this public expenditure. Moreover, this view clearly illustrates that there is a potential shifting of costs between the household and society in the production of a given level of this functioning. A particular level of this dimension of the standard of living may be more efficiently provided if the state uses resources to produce safe water than if every household has to produce it on its own through, for example, the purchase of bottled water. Thus, neglect of this aspect of the household production model leads to ignoring important economic considerations in determining the standard of living defined in terms of realized capabilities or functionings.

This fundamental economic interaction between households and other institutions is quite pervasive, and it is not limited to the provision of public goods by governments. For instance, in the household's interaction with retail systems one can conceive of the distribution services provided by retail firms as fixed inputs into household production activities.¹⁴ Higher levels of these services lower distribution or

purchasing costs for households while they increase production costs for the firms that provide these services. Depending on environmental factors, different societies end up with different configurations in the allocation of these costs between households and retail firms and in attaining different standards of living in terms of the capabilities afforded by these different configurations.¹⁵ It is interesting that a similar point is embedded in Hart's comparison of West African and British societies in connection with the Tanner lectures.¹⁶

Most economists are interested in the standard of living as a measuring rod for understanding, guiding, and evaluating its evolution and in the pursuit of policies aimed at improving well-being. If this is the ultimate focus of the inquiry, it is not sensible to ignore an important economic mechanism that affects this concept when measured in terms of capabilities. The level of any household's capabilities is going to be substantially affected by the presence or absence of many fixed inputs provided by other institutions.¹⁷

IV. Implementing the Capabilities Approach

An obvious starting point for this discussion is the human development index (HDI) put forth by the United Nations. In its own words, "The HDI is an unweighted average of the relative distances measured in longevity, education and resources. . . . It is a minimal measure. For a country that has achieved a high value of the HDI, the question then arises about other dimensions in which people can grow."¹⁸ Several problems arise with this index: intertemporal comparisons require fixed goalposts, not relative ones, the equal weights are arbitrary, and the selection of these three dimensions over others, such as freedom and human rights, gives predetermined answers, which may be inappropriate, to relevant questions. The United Nations report provides a summary of debates on these and other issues. Here I emphasize the difficulty of understanding how the standard of living evolves over time if measured in terms of the index, and the a priori decision to relegate issues of freedom and human rights to a subsidiary position in the standard of living.¹⁹

Before proceeding, it is worth noting that the Human Development Report provides useful information on many individual dimensions of what the standard of living can be. Hence, rejection of a particular version of the HDI implies nothing about the merits of the substantial amount of information provided in the report. Empirically speaking, it is only one table out of 52; substantively speaking, the issues raised in the report are worthy of attention even if all versions of the index were to be judged as fundamentally flawed for certain purposes.

A somewhat less controversial approach was put forth recently by N. Kakwani. He forgoes the notion of weighting different dimen-

sions of the standard of living into an overall index and, instead, concentrates on defining an index of achievements or functionings for any dimension that has desirable properties, which are defined axiomatically. Since the aggregate measures of well-being considered by Kakwani (life expectancy at birth, infant mortality, and literacy rate) have asymptotic limits, reflecting physical and biological maxima (M), he proposes an achievement index for each one that captures this feature as well as the existence of a minimum (M_0). This leads to an index that ranges between 0 and 1. Kakwani also imposes an axiom (5) on the index that is justified as follows: "As the standard of living reaches progressively higher limits, incremental improvements should require much greater resources than similar incremental improvements from a lower base."²⁰

While the property incorporated into this last axiom may be appropriate for indicators of health, for example, life expectancy and infant mortality, it is not necessarily appropriate for indicators of other dimensions of the standard of living, for example, literacy and average GDP. The main point is a conceptual one. If at a particular level of an indicator there are important thresholds or network externalities or fixed costs that need to be overcome in order to generate a given improvement, the resources required to overcome these factors will be greater than what is necessary to make further improvements. For example, when the literacy rate is very low it may require greater resources to improve it than when literacy is at medium or high levels. A simple example generates this result: assume that some fraction of the literate population will teach its children to read and write; other things being equal, in this setting a country with a 10% literate population has to devote a greater amount of societal resources to provide literacy to an additional 1% of the population than if it had a 20% literate population.

In the case of average GDP, there are also theoretical reasons to expect the nonlinearity in the indicator to exhibit nonconvexities, which violates Kakwani's axiom 5. For instance, C. Azariadis and A. Drazen develop a model in which, if threshold externalities are due to the attainment of a critical mass in human capital, multiple balanced growth paths and development take-offs become possible. In looking at evidence in support of this model, they note that no countries were able to grow quickly during 1940–70 or 1960–80 without the benefit of a highly qualified labor force at the beginning of the period. A qualified labor force was measured during the periods 1940–70 and 1960–80 by the literacy to GNP ratio and the literacy to GDP ratio, respectively.²¹ Fixed costs due to infrastructure needs can generate the same type of nonconvexities. The achievement index developed by Kakwani assumes away the existence of these possibilities.

Rather than focus on mechanical indexes and their properties, an

alternative approach is to assess, however imperfectly, the efficacy of arrangements aimed at providing basic capabilities to the poor. J. Dreze and Sen identify two strategies: growth-mediated security and support-led security.²² More recently, Anand and Ravallion have identified three views: capability expansion through economic growth, capability expansion through poverty reduction, and capability expansion through social services.²³ Concentrating on life expectancy at birth, they show that evidence from a cross section of 22 countries indicates that one-third of the improvement in this capability arises from poverty reduction while the other two-thirds is due to increased spending on health. They offer a number of caveats: results may differ from country to country and over time for a single country; the results do not hold up for literacy rates; and the results may be sensitive to certain measurement or econometric problems.

The household production model provides an interesting view of these results. If we define Z_1 as one of the capabilities generating satisfaction and associated with life expectancy, and if we define Z_2 as an aggregate of other capabilities, we can describe their results as shown in figure 1. Increases in social services shift the household's

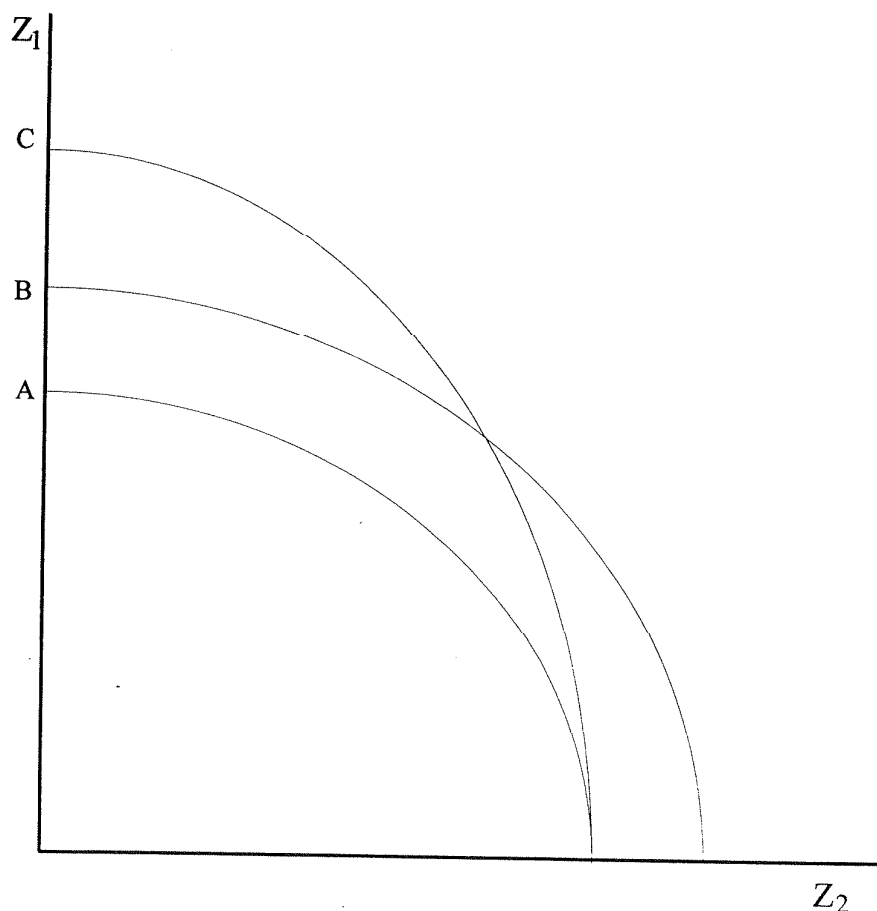


FIG. 1.—Capability expansion and the household production model

production possibility frontier, as indicated by curve *C* in figure 1. Poverty reduction through income growth shifts the household's possibility frontier as in curve *B*. If one is interested only in achievements in life expectancy, increased social services appear to be the superior alternative; if one is interested in expanding capabilities, however, this conclusion no longer follows even within the capabilities framework. Indeed, even in the context of increased social services one can view curve *C* as describing opportunities increased through health expenditures and curve *B* as opportunities increased through targeted food subsidies. An evaluation of the effectiveness of alternatives in either case has to take into account the potential for cost shifting between the household and the institutions providing social services.

At least three other issues are worth discussing in connection with these results and the capabilities approach in general: the scope of development economics, hysteresis, and the role of freedom and human rights. Poverty and its elimination or amelioration is one of the main topics of development economics, but it is not the only topic. While the capabilities approach may be especially suited to address problems of poverty, conceptually it is not limited to that topic. Indeed, it would be a significant intellectual loss for both the study of poverty and of development if this separation were to take place. At low levels of development, the issue of poverty attracts greater attention because it affects more people and it entails greater suffering. The emphasis on poverty alleviation through the capabilities approach is of special interest because it suggests choices to be made at low levels of development measured in conventional ways. Hence, Sri Lanka and other outliers in the sense of greater poverty reduction at comparable low levels of development provide interesting case studies. The question is, Do they support the view that "policy intervention can play a role in the promotion of human development independently of the promotion of aggregate affluence"?²⁴

From the point of view of development economics the answer is far from settled. Anand and Ravallion note that Sri Lanka's record of government intervention in health and education goes back to the 1920s, and they obtain results similar to their cross-section analyses for a time series regression of infant mortality rates (1952–81). Kakwani also identifies Sri Lanka as an outlier with respect to life expectancy at birth and infant mortality, in terms of his achievement index for both 1971–80 and 1981–90. He also notes a shift in policies after 1977 from a welfare-oriented development strategy to a growth-oriented one and a major policy switch from food subsidies to a means-tested food stamps program that led to "enormous savings . . . directed to production and employment activities."²⁵ If a factor for the change in policies was the drag on growth generated by the earlier welfare policies, one cannot conclude that the role of policy interventions in

promoting human development is independent of the promotion of aggregate affluence.²⁶

What the above considerations suggest is that the phenomenon of hysteresis is as relevant to discussions of poverty alleviation as to development regardless of whether or not one adopts the capabilities approach to either or both. If one admits to the possibility of optimal sequences in either instance, one has to confront the reality that a choice for social services provision over poverty reduction through income growth may be a sensible strategy for capability expansion in some stages and not a sensible one in other stages.²⁷ Incidentally, a switch in policies generated by a democratic process and resulting in a higher standard of living for a majority of the population can be interpreted as an important sign of development.

A similar phenomenon arises when discussions of capability expansion are extended to other countries that can be viewed as outliers. For instance, one of the most significant events of our century has been the demise of communist societies in the former Soviet Union and in Eastern Europe. These societies were characterized by extensive government intervention to secure minimum levels of certain capabilities for the vast majority of their population. If one looks at their achievement in the health area through the main indicator in the capabilities approach, one finds that life expectancy at birth for these countries went from 67.7 in 1960 to 70.3 in 1990. Comparable figures for the Organization for Economic Cooperation and Development (OECD) countries are 69.6 in 1960 and 76.4 in 1990.²⁸ By this measure capability expansion was greater in the OECD countries than in the former Soviet Union and Eastern Europe. Even if performance in the early postwar period had been superior for the latter compared with the former, the issue of hysteresis with respect to the most sensible choice between poverty reduction through income growth and provision of social services remains.

Discussion of transition societies immediately brings to the fore extensions of the capabilities approach to the dimension of freedom and human rights. There is no agreed on measure of capabilities in this area,²⁹ but one can argue that the demise of communist societies after 1989 represents an expansion of the capabilities for freedom and human rights for most of their members. This expansion is taking place at a fairly high cost for many in terms of affluence in the short run and possibly in terms of basic capabilities.³⁰

Alternatively, the accomplishments in expansion of some basic capabilities by right-wing dictatorships in South Korea and Chile have been noted by proponents of the capabilities approach.³¹ Is there more than a casual connection between the accompanying suppression of freedom and human rights and these successes? Are the democratization processes under way in South Korea and Chile capable of continu-

ing or at least preserving the earlier gains in other dimensions? If so, were these sequences of dictatorship to democracy necessary or historical accidents? There are no clear-cut answers to these questions,³² but they are worth keeping in mind when assessing policy implementations.

V. Implications for Transition Processes in Cuba

Cuba represents an outlier in terms of the capabilities approach. From its inception, the Cuban revolution has devoted a substantial amount of resources to improvements in health and education through social spending in these sectors and to the maintenance of a minimum standard of consumption through a rationing system. The results in terms of available capability indicators are as follows: life expectancy at birth increased between 1960 and 1990 by 11.6 years; infant mortality rates over the same period declined by 51 per 1,000; and adult literacy rates increased by 7 percentage points between 1970 and 1990. Comparable numbers for Chile and Costa Rica, respectively, are, for life expectancy increases, 14.7 years and 11.7 years; for infant mortality declines, 97 per 1,000 and 70 per 1,000; and for literacy rate increase, 4% and 5%.³³ All three countries are grouped by Dreze and Sen as providing support-led security.³⁴

The following gives some perspective on these improvement indicators. In 1960 Cuba was ahead of the other two countries with respect to the two health indicators and it remained ahead, but by a smaller margin, in 1990. With respect to literacy, Cuba was slightly behind the other two in 1970, and slightly ahead in 1990. If we consider indicators of economic well-being, most observers would place Cuba at the top of Latin America in terms of GNP per capita in the 1950s.³⁵ P. Dasgupta notes the similarity in population size and national income during the early 1980s between Chile and Cuba.³⁶ Nonetheless, looking at GDP per capita in 1990 international comparison project dollars we find the following: Cuba, 2,200; Chile, 5,099; Costa Rica, 4,542.³⁷ It would take a rather dramatic correction for inequality to bring the other two countries down to Cuba's level. Moreover, these two countries are among those singled out by Dreze and Sen for their performance on behalf of the poor.³⁸

To sum up, Cuba's performance in the capabilities dimensions of health and education from 1960 until 1990 has been similar to Chile's and Costa Rica's. In the economic well-being dimension of capabilities, however, it has been a decidedly inferior performer compared with Chile and Costa Rica during the same period. Finally, a similar conclusion follows with respect to Cuba's performance in the area of freedom and human rights relative to Costa Rica or even to Chile. These current levels of accomplishment in various dimensions of capa-

bilities, as well as the paths leading to them, have important implications for the transition processes now under way in Cuba.

Current economic conditions in Cuba are dismal. C. Mesa-Lago presents estimates of decline in GDP for 1990, 1991, and 1992 from nine different sources, including Castro, Cuban economists (Carranza, Monreal), and outsiders ranging from Mesa-Lago to Zimbalist. The smallest decline in any one of the 3 years is 5%; the largest is 35%.³⁹ Two fundamental economic characteristics of the current situation are dramatic decreases in oil imports and a substantial reduction in revenues from sugar.⁴⁰ These considerations suggest that since 1990 Cuba has fallen farther behind Costa Rica and Chile in the economic dimension of well-being. Indeed, by 1990 Cuba already ranked below Ecuador, Paraguay, and the Dominican Republic in this dimension at the aggregate level, and it may very well be joining the ranks of the poorest of the poor among Latin American countries in terms of economic well-being.

Cuba's levels of achievement in health and education capabilities indicators remained substantially above those of Paraguay, Ecuador, and the Dominican Republic in 1990. Since these indicators are aggregate and reflect long-run trends because of their nature as stocks, it is unlikely that the deterioration in economic performance will bring Cuba close to these countries' levels of achievement in the next 10 years.⁴¹ For instance, Mesa-Lago points out a variety of measures available during the current crisis that would permit a significant cut in health and education expenditures but help maintain earlier accomplishments.⁴² With respect to freedom and human rights, however, there are indications of attempts to increase the level of repression. An example is the creation of rapid deployment squads with special access to oil supplies in order to suppress quickly public manifestations of dissent; another is the public repudiations of dissenters.⁴³

One can easily interpret, or misinterpret, the capabilities approach to the standard of living as implying that there are no trade-offs between dimensions. As Dasgupta points out, however, it is not necessary to do so.⁴⁴ The current situation in Cuba and the earlier discussion on the importance of hysteresis in the evolution of the standard of living suggest that the economic dimension of well-being is acquiring a priority in Cuba that is comparable only to what existed during its population decline due to the War of Independence a century ago. A priority is the beginning of a trade-off.

Reluctantly, the Cuban government has adopted a number of measures that indicate the high priority given at this time to the economic dimension of well-being. Recent changes are the promotion of foreign investment, international tourism, and diversification of international trade. While some efforts in these directions existed earlier, they have

been identified recently as the three pillars of a new opening.⁴⁵ Liberalization of private self-employment activity in some trades was approved during the 4th Party Congress in 1991. A substantial increase in black market activity is a fact of life.⁴⁶ An announcement of agricultural sector reforms took place in September 1993 and fiscal reform measures were announced in May 1994.

Undoubtedly the most dramatic economic measure adopted was making the dollar legal tender in July 1993. It is notable because it legalized privileged access to wealth by individuals with ties to the exile community and access to the international trade sector. It represented a significant redistribution of income from faithful party cadres without access to the international trade sector toward individuals suspected of doubtful support for the regime. It is not surprising that in May 1994 a reversal of this measure was announced. A new peso, convertible into dollars at a government set rate, was proposed together with severe, retroactive sanctions for illicit transactions. By setting the exchange rate, a dollar tax can be collected. By increasing the sanctions for the now illicit dollar transactions, substitution toward the black market is discouraged. Obviously the current crisis is forcing Cuba's decision makers to consider a number of uncertain trade-offs between improving economic well-being and repressing political capabilities.

One of the mechanisms used in Cuba to assure an equitable distribution of a minimum of economic well-being has been a rationing system. The importance of its role in the distribution system has fluctuated inversely with the general level of prosperity.⁴⁷ A stark view of the economic situation is provided by the changes in the monthly per capita quota officially available between mid-1989 and 1991-92.⁴⁸ Clark identified five items as freely available in mid-1989 (small fish, butter, eggs, bread, and beer) that are also reported by Mesa-Lago for late 1991-early 1992. At the latter date small fish were available at 0.67 pounds per month, butter was not available, eggs were available at 20 per month, bread was available at 5 pounds per month, and beer was available at 24 bottles per month. Beef and chicken were no longer available in the official amounts in 1992; black beans were seldom available, although the official quota for beans was higher in 1992 than in 1989. Rice, milk, coffee, and sugar remained the same as in 1989 and officially available cigarettes increased from three packages a month to four. Finally, it is reported by Mesa-Lago that the daily caloric intake declined from 2,835 in 1989 to 2,000 in 1992, which is below the minimum standard set by the World Health Organization.

If development implies the ability of a society to consistently increase the standard of living of a substantial majority of its population, in the last 33 years Cuba has done well with respect to health and education but not necessarily better than some of its neighbors such

5. United Nations Development Programme, *Human Development Report* (New York: Oxford University Press, 1990, 1991, 1993).

6. With either concept one can also make a distinction between the level of living or what is actually attained and the standard of living or what is a desired state or objective. Unless stated otherwise in the text I will be ignoring this distinction and using the standard of living as synonym for the level of living, which is a common practice in the literature.

7. H. Arndt, "Economic Development: A Semantic History," *Economic Development and Cultural Change* 32 (April 1981): 457-66.

8. For example, see D. North and R. Thomas, *The Rise of the Western World* (Cambridge: Cambridge University Press, 1973); or D. North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990).

9. For example, see R. Lucas, "On the Mechanics of Economic Development," *Journal of Monetary Economics* (January 1988), pp. 3-42.

10. A process characterized by hysteresis is one where the evolution of the process depends on the actual path or history of the process as opposed to just initial conditions and a principle underlying its evolution. This view of economic processes has been put forth by N. Georgescu-Roegen, *The Entropy Law and the Economic Process* (Cambridge, Mass.: Harvard University Press, 1971).

11. In Sen's view a "functioning" is an achievement, a capability is the ability to achieve, and the standard of living is a set of capabilities; see A. Sen, "The Standard of Living: Lecture I, II," in *The Standard of Living*, ed. G. Hawthorn (Cambridge: Cambridge University Press, 1987). In practice the applied literature views the standard of living as a set of realized capabilities or functionings.

12. See J. Muellbauer, "Professor Sen on the Standard of Living," in Hawthorn, ed.

13. See G. Stigler and G. Becker, "De Gustibus non est Disputandum," *American Economic Review* 67 (March 1977): 76-90.

14. See R. Betancourt and D. Gautschi, "The Demand for Retail Products and the Household Production Model: New Views on Complementarity and Substitutability," *Journal of Economic Behavior and Organization* 17 (March 1992): 257-75.

15. For an analysis of this characteristic of retail systems see R. Betancourt and D. Gautschi, "Two Essential Characteristics of Retail Markets and Their Economic Consequences," *Journal of Economic Behavior and Organization* 21 (August 1993): 277-94.

16. See K. Hart, "Commoditisation and the Standard of Living," in Hawthorn, ed.

17. Emphasis on the household production model as a useful analytical tool in this context does not necessarily mean that it is appropriate in all contexts. If one wants to consider issues of intrahousehold inequality, it has to be supplemented or set aside to accommodate bargaining issues (e.g.; see Dasgupta [n. 2 above]).

18. United Nations Development Programme, 1993 (n. 5 above), p. 104.

19. For thoughtful theoretical arguments on the role of these factors in well-being as well as an attempt at measurement in poor countries, see Dasgupta, chaps. 2, 3, and 5.

20. N. Kakwani, "Performance in Living Standards: An International Comparison," *Journal of Development Economics* 41 (August 1993): 307-29, quote on 312.

21. This evidence is suggestive but not conclusive on the existence of a

threshold due to this factor, because at the beginning of the period there were countries with high ratios of literacy to GDP or GNP that did not grow rapidly. Thus overcoming a threshold for a highly qualified labor force would be necessary but not sufficient for rapid growth in average GDP. Incidentally, a regression of a monotonic transformation of GDP growth on literacy, controlling for average GDP, does show a positive and statistically significant relationship over the 71 low- and medium-income countries in their sample (see C. Azariadis and A. Drazen, "Threshold Externalities in Economic Development," *Quarterly Journal of Economics* 105 [May 1990]: 501-26).

22. J. Dreze and A. Sen, *Hunger and Public Action* (Oxford: Clarendon, 1989).

23. Anand and Ravallion (n. 3 above).

24. *Ibid.*, p. 144.

25. Kakwani.

26. As for the consequences of the switch in policies for capability expansion, Kakwani's results suggest that Sri Lanka's role as an outlier decreased for life expectancy and increased for infant mortality; that is, there was an increase in the ratio of Sri Lanka's achievement index to South Asia's for infant mortality from 1.45 during 1971-80 to 1.58 during 1981-90 and a decrease in the same ratio for life expectancy from 1.45 to 1.40.

27. For instance, Dasgupta (n. 2 above) concludes his treatise by pointing out the areas of public provision that are more likely to be successful in poor societies.

28. Both sets of figures are from United Nations Development Programme, 1993 (n. 5 above), table 31.

29. Discussion of some alternatives is available in *ibid.*, 1991, and in Dasgupta.

30. A discussion of these issues is available in L. Summers, "The Next Decade in Central and Eastern Europe"; and D. Newbery, "The Safety Net during Transformation: Hungary," both in *The Emergence of Market Economies in Eastern Europe*, ed. C. Clague and G. Rausser (Oxford: Blackwell, 1992).

31. Dreze and Sen (n. 22 above) identify South Korea as engaged in growth-mediated security and Chile as engaged in support-led security.

32. For instance, a recent theoretical argument establishing a positive link between democracy and economic performance is provided by M. McGuire and M. Olson, "Optimization by Autocrats and Majorities" (University of Maryland, 1993, mimeographed). An overview of causal mechanisms and available evidence is provided by P. Bardhan, "Symposium on Democracy and Development," *Journal of Economic Perspectives* 7 (Summer 1993): 45-50.

33. These figures are from United Nations Development Programme, 1993, table 4.

34. Dreze and Sen.

35. For instance, even a critic of the ancient regime and sympathetic observer of the Cuban revolution writes about the situation in 1958: "Only Venezuela and Argentina, of the larger Latin American countries, had a higher average income" (see D. Seers, "Economic and Social Problems of Twentieth Century Cuba," in *Background to Revolution*, ed. R. Freeman Smith [New York: Knopf, 1966], p. 212).

36. Dasgupta (n. 2 above), p. 127.

37. United Nations Development Programme, 1993 (n. 5 above), table 1. The figure for Cuba is a United Nations Development Programme estimate constructed with the help of L. Goldstone of World Statistics, Ltd.; the other

figures are standard ones from the Penn project. While the figure for Cuba is less reliable than the others are, it is consistent with other estimates. For example, the Economist Intelligence Unit reports a GDP of \$23.6 billion for 1991 (see M. Font, "The Cuban Structural Crisis," *Cuban Affairs* 1 [Spring 1994]: 7). Using the estimated population of 10.7 million for 1991 from the United Nations Development Programme, 1993, yields a per capita GDP of \$2,220 in current dollars.

38. Dreze and Sen.

39. C. Mesa-Lago, "The Social Safety Net in the Two Cuban Transitions," in *Transition in Cuba*, ed. L. Percz (Miami: Florida International University Press, 1993).

40. For instance, imports of oil went from 13.3 million tons in 1989 to 6.1 million tons in 1992, and sugar output is reported to have decreased from 7.1 million tons in 1989 to 6.3 million tons in 1992 (see J. Carranza, "Cuba: Los Retos de la Economia," *Cuadernos de Nuestra America* [January-June 1993], pp. 131-59). The situation in 1993 was worse; e.g., a fall in sugar revenues from \$1.1 billion to \$0.65 billion was reported as one of the reasons for the legalization of the dollar by a Cuban economist (P. Monreal) during a public lecture at Georgetown University.

41. Of 31 countries showing a decline in GDP per capita between the decade of the 1970s and the decade of the 1980s, none showed a decline in life expectancy or infant mortality as measured by Kakwani (n. 20 above).

42. Mesa-Lago.

43. Two of the best-known cases are Maria Elena Cruz and Elisardo Sanchez (e.g., see J. Blight, B. Allyn, and D. Welch, *Cuba on the Brink* [New York: Pantheon, 1993], p. 398).

44. Dasgupta, chap. 2, sec. 3.

45. M. Rua and P. Monreal, "La Apertura Economica Cubana," *Cuba Foreign Trade* 1 (1993): 1-11.

46. See Carranza; and J. Perez-Lopez, "The Cuban Second Economy: Methodological and Practical Issues Related to Quantification," in *Cuba in Transition*, ed. G. P. Montalvan (Miami: Florida International University Press, 1993), vol. 2.

47. See R. Betancourt, "The Distribution Sector in a CPE: Cuba," in G. Montalvan, ed.

48. For mid-1989, see J. Clark, *Cuba: Mito y Realidad* (Miami: Saeta Ediciones, 1990); for 1991-92, see Mesa-Lago (n. 39 above).

49. Standard prescriptions for economies in transition suggest the avoidance of rationing systems (see, e.g., Newbery [n. 30 above]). Textbook analyses of developing countries point to the high costs of food subsidies when available for the entire population (see, e.g., M. Gillis et al., *Economics of Development* [New York: W. W. Norton, 1992]). Nonetheless, many variants exist in developing countries (see O. Knudsen and J. Nash, "Domestic Price Stabilization Schemes in Developing Countries," *Economic Development and Cultural Change* 38 [April 1990]: 539-58).

50. See J. Behrman and A. Deolalikar, "Health and Nutrition," in Chenery and Srinivasan (n. 1 above).

51. See D. Sahn and N. Edirisinghe, "The Politics of Food Policy in Sri Lanka," in *The Political Economy of Food and Nutrition Policies*, ed. P. Pinstrup-Andersen (Baltimore: Johns Hopkins University Press, 1993).